

# Pressing Plant Specimens

## A guide for collecting and pressing quality plant specimens

Using the correct collection and preservation process for plants will ensure dried specimens are sufficient for their desired use. Pressed plant specimens can be:

- Stored in herbarium collections
- Used as teaching tools for plant anatomy, identification and range courses
- Used for various arts and crafts

A herbarium is a collection of dried plant specimens, mounted and stored systematically to be used as references in scientific studies. A plant to be stored as a **herbarium specimen** must be pressed flat and completely dried before being mounted on archival-quality paper (11 x 17 inches) and labeled with proper information. Specimens are accessioned (numbered and recorded) into a registered herbarium where they will remain indefinitely as part of the collection. Objects that cannot be pressed (some fruiting bodies, cones, bark, etc.) are stored in acid-free boxes. Herbarium specimens must be handled properly in order to minimize damage that could occur when moving the stored specimens for study.

Accessioned herbarium specimens should not be used as **teaching resources** to be studied and handled regularly in the classroom. Teaching specimens can be used for plant identification, anatomy, classification courses and range courses, clubs or competitions. Although teaching specimens can be prepared in any manner, for more long-lasting material, specimens should be collected, dried, mounted and handled with the same care as herbarium specimens.

Dried plant specimens for **arts and crafts** can be collected and dried in any manner fit to produce the results needed. The most important thing is that they are flat and completely dry.

A standard **plant press** is made of plywood, corrugated cardboard, and newspapers, all held together in a stack by a strap which can be tightened. Herbarium plant presses are 11 inches wide and 17 inches long. They can be slightly smaller (but no bigger) to ensure the pressed plants will fit on the mounting paper. Plant presses for other purposes can be any size; included in the UCCD our Plant Chest are four 3 x 5 inch presses for small leaf or flower samples).

Correct pressing and drying procedures ensure that the plants are pressed flat and are sufficiently dry to prevent molding.

1. Select the plant or plant part you would like to press. If you plan to have the plant identified, make sure you collect vegetative (leaves, stems, roots) and reproductive (flower or fruit) parts of the plant. For shrubs or trees clip a branch and remember to get flowers or a fruiting body. If you are collecting plants for herbarium specimens, it is important that the chosen specimen is representative of the population.
2. If you plan on having the specimen identified, it is also important to record information about the plant such as the date of collection, habitat description, collection location

(county/state, reference points and directions, elevation, latitude/longitude, GPS coordinates) and details about the quantity, size or any other feature of the plant.

3. Plant specimens can be kept separate from one another in plastic bags while in the field and should be pressed as soon as possible.
4. Before placing plants in a press, make sure dirt is gently brushed from the roots and that flowers and leaves are intact or placed in the press with the plants.
5. Set your press on an even surface and undo the straps. When pressing plants, start at the bottom (or the next in line from the bottom if there are already specimens in the press). One specimen goes between one folded piece of newspaper and two sheets of cardboard. Include your collection information with each specimen. Tall grassed or plants can be bent or folded to fit on the page but should never hang out of the press. Continue stacking the layers until all plants are in the press. Replace the remaining cardboard sheets and plywood on top and align the press. Secure the straps around the press as tight as possible.
6. Presses can be placed in an artificial dryer if available or left outside to dry in the heat and wind. The corrugated cardboard aids in air ventilation for the drying process. Drying time will depend upon weather conditions, but usually takes a few days to a week outside. Do not let your press get rained on.
7. After the specimens are completely dried, remove the plants from the press keeping them in their newspapers to keep them separate and protected. Pressed plants can then be identified or used for your desired purpose.

The field guides and identification keys included in the UCCD Plant Chest are great resources for identifying plants in Uinta County Wyoming. For more assistance with plant identification please contact the Uinta County Conservation District.

For more information on collecting herbarium specimens contact the Rocky Mountain Herbarium at the University of Wyoming: <https://www.uwyo.edu/botany/rocky-mountain-herbarium/>.